

<b>NOTICE OF REVISION (NOR)</b>		1. DATE (YYMMDD) 95-10-10		Form Approved OMB No. 0704-0188											
THIS REVISION DESCRIBED BELOW HAS BEEN AUTHORIZED FOR THE DOCUMENT LISTED.															
<small>Public reporting burden for this collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSED. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/ PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.</small>				2. PROCURING ACTIVITY NO.											
				3. DODAAC											
4. ORIGINATOR		b. ADDRESS ( <i>Street, City, State, Zip Code</i> ) Defense Electronics Supply Center 1507 Wilmington Pike Dayton, OH 45444-5270		5. CAGE CODE 67268											
a. TYPED NAME ( <i>First, Middle Initial, Last</i> )				7. CAGE CODE 67268											
6. NOR NO. 5962-R001-96			8. DOCUMENT NO. <b>83024</b>												
9. TITLE OF DOCUMENT MICROCIRCUIT, LINEAR, 4-CHANNEL, OPTICALLY COUPLED ISOLATOR, HYBRID			10. REVISION LETTER		11. ECP NO. N/A										
			a. CURRENT F	b. NEW G											
12. CONFIGURATION ITEM (OR SYSTEM) TO WHICH ECP APPLIES All															
13. DESCRIPTION OF REVISION															
<p>Sheet 1: Revisions ltr column; add "G".          Revisions description column; add "Changes in accordance with NOR 5962-R001-96".          Revisions date column; add "95-10-10"          Revision level block; add "G".          Rev status of sheets; for sheets 1, 2, and 9, add "G".</p> <p>Sheet 2: Paragraph 1.2.1.; Delete the following;</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">01</td> <td style="width: 30%;">6N140A</td> <td style="width: 60%;">4-channel optical coupler</td> </tr> </table> <p>Substitute with the following:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">01</td> <td style="width: 30%;">6N140A, HCPL-6571</td> <td style="width: 60%;">4-channel optical coupler</td> </tr> </table> <p>Sheet 2: Paragraph 1.2.2.; Add the following:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">F</td> <td style="width: 20%;">CDFP4-F16</td> <td style="width: 20%;">16</td> <td style="width: 50%;">Flat pack</td> </tr> </table>						01	6N140A	4-channel optical coupler	01	6N140A, HCPL-6571	4-channel optical coupler	F	CDFP4-F16	16	Flat pack
01	6N140A	4-channel optical coupler													
01	6N140A, HCPL-6571	4-channel optical coupler													
F	CDFP4-F16	16	Flat pack												
14. THIS SECTION FOR GOVERNMENT USE ONLY															
a. ( <i>X one</i> )		<input checked="" type="checkbox"/> (1) Existing document supplemented by the NOR may be used in manufacture. <input type="checkbox"/> (2) Revised document must be received before manufacturer may incorporate this change. <input type="checkbox"/> (3) Custodian of master document shall make above revision and furnish revised document.													
						<input type="checkbox"/>									
						<input type="checkbox"/>									
b. ACTIVITY AUTHORIZED TO APPROVE CHANGE FOR GOVERNMENT			c. TYPED NAME ( <i>First, Middle Initial, Last</i> )												
d. TITLE Chief, Electronics Component Branch		e. SIGNATURE Kendall A. Cottongim		f. DATE SIGNED (YYMMDD) 95-10-10											
15a. ACTIVITY ACCOMPLISHING REVISION DESC-ELDT		b. REVISION COMPLETED ( <i>Signature</i> ) Steve L. Duncan		c. DATE SIGNED (YYMMDD) 95-10-10											

13. DESCRIPTION OF REVISION - CONTINUED

Document No.: 83024  
Revision: G  
NOR No.: 5962-R001-96  
Sheet: 2 of 2

Sheet 2: Paragraph 1.3 Absolute maximum ratings: Under Thermal resistance, junction-to-case ( $\Theta_{JC}$ )

Delete Case outline E ..... See, MIL-STD-1835 and replace with

Case outlines E and F ..... See, MIL-STD-1835.

Sheet 9: FIGURE 2. Terminal connections.

In the Case outline block delete the E, X, Y, and Z and replace with F, E, X, Y, and Z.

REVISIONS

LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
A	Change to military format Remove approved vendor CAGE 31757.	88-11-08	W. Heckman
B	Reinstate vendor CAGE 31757. Document updated with editorial changes throughout. Changed to reflect MIL-H-38534 processing.	90-01-10	W. Heckman
C	Document updated with editorial changes throughout. Changed to reflect current MIL-H-38534 requirements.	90-08-09	W. Heckman
D	Added case outlines X and Y. Editorial changes throughout.	93-08-31	K. A. Cottongim
E	Changes in accordance with NOR 5962-R032-94.	93-11-12	K. A. Cottongim
F	Add case outline Z. Rewrite entire document.	94-04-07	K. A. Cottongim

THE ORIGINAL FIRST PAGE OF THIS DRAWING HAS BEEN REPLACED

CURRENT CAGE CODE 67268

REV																													
SHEET																													
REV																													
SHEET																													
REV STATUS OF SHEETS				REV			F	F	F	F	F	F	F	F	F	F													
				SHEET			1	2	3	4	5	6	7	8	9	10	11												
PMIC N/A				PREPARED BY Gary Zahn						DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OHIO 45444																			
<b>STANDARDIZED MILITARY DRAWING</b>  THIS DRAWING IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE  AMSC N/A				CHECKED BY Robert M. Heber																									
				APPROVED BY William K. Heckman																									
				DRAWING APPROVAL DATE 84-08-10																									
				REVISION LEVEL F																									
										SIZE <b>A</b>		CAGE CODE <b>14933</b>		<b>83024</b>															
										SHEET 1 OF 11																			

DESC FORM 193-1

JUL 91

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

5962-E218-94

## 1. SCOPE

1.1 Scope. This drawing describes device requirements for class H hybrid microcircuits to be processed in accordance with MIL-H-38534.

1.2 Part or Identifying Number (PIN). The complete PIN shall be as shown in the following example:

<u>83024</u>	<u>01</u>	<u>E</u>	<u>X</u>
Drawing number	Device type (see 1.2.1)	Case outline (see 1.2.2)	Lead finish (see 1.2.3)

1.2.1 Device type(s). The device type(s) shall identify the circuit function as follows:

<u>Device type</u>	<u>Generic number</u>	<u>Circuit function</u>
01	6N140A	4-channel optical coupler

1.2.2 Case outline(s). The case outline(s) shall be as designated in MIL-STD-1835 and as follows:

<u>Outline letter</u>	<u>Descriptive designator</u>	<u>Terminals</u>	<u>Package style</u>
E	CDIP2-T16	16	Dual-in-line
X	See figure 1	16	Dual-in-line
Y	See figure 1	16	Dual-in-line
Z	See figure 1	16	Dual-in-line

1.2.3 Lead finish. The lead finish shall be as specified in MIL-H-38534. Finish letter "X" shall not be marked on the microcircuit or its packaging. The "X" designation is for use in specifications when lead finishes A, B, and C are considered acceptable and interchangeable without preference.

## 1.3 Absolute maximum ratings. 1/

Supply voltage ( $V_{CC}$ )	-0.5 V dc to +20 V dc <u>2/</u>
Peak input current (each channel, $\leq 1$ ms duration)	20 mA
Average input current, $I_F$ (each channel)	10 mA <u>3/</u>
Reverse input voltage, $V_R$ (each channel)	5 V dc
Output current, $I_O$ (each channel)	40 mA
Output voltage, $V_O$ (each channel)	-0.5 V dc to +20 V dc <u>2/</u>
Output power dissipation (each channel)	50 mW <u>4/</u>
Storage temperature	-65°C to +150°C
Junction temperature ( $T_J$ )	+175°C
Lead solder temperature (soldering, 10 seconds)	+260°C (1.6 mm below seating plane)
Thermal resistance, junction-to-case ( $\theta_{JC}$ )	
Case outline E	See MIL-STD-1835
Case outlines X, Y, and Z	+28°C/W
Case temperature	+170°C

1/ Stresses above the absolute maximum rating may cause permanent damage to the device. Extended operation at the maximum levels may degrade performance and affect reliability.

2/ Pin 10 should be the most negative voltage at the detector side.

Keeping  $V_{CC}$  as low as possible, but greater than 2.0 volts, will provide the lowest total  $I_{OH}$  over temperature.

3/ Derate  $I_F$  at 0.33 mA/°C above +110°C.

4/ Output power is collector output power plus one fourth of total supply power. Derate at 1.66 mW/°C above +110°C.

<b>STANDARDIZED MILITARY DRAWING DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OHIO 45444</b>	SIZE <b>A</b>		<b>83024</b>
		REVISION LEVEL F	SHEET <b>5</b>

#### 1.4 Recommended operating conditions.

Supply voltage range .....	2.0 V dc minimum to 18 V dc maximum
High level input current .....	0.5 mA dc minimum (each channel) up to 5 mA dc maximum
Low level input voltage .....	0.8 V maximum (each channel)
Ambient operating temperature range (T <sub>A</sub> ) .....	-55°C to +125°C

## 2. APPLICABLE DOCUMENTS

2.1 Government specification and standards. Unless otherwise specified, the following specification and standards of the issue listed in that issue of the Department of Defense Index of Specifications and Standards specified in the solicitation, form a part of this drawing to the extent specified herein.

### SPECIFICATION

#### MILITARY

MIL-H-38534 - Hybrid Microcircuits, General Specification for.

### STANDARDS

#### MILITARY

MIL-STD-883 - Test Methods and Procedures for Microelectronics.

MIL-STD-1835 - Microcircuit Case Outlines.

(Copies of the specification and standards required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.2 Order of precedence. In the event of a conflict between the text of this drawing and the references cited herein, the text of this drawing shall take precedence.

## 3. REQUIREMENTS

3.1 Item requirements. The individual item requirements shall be in accordance with MIL-H-38534 and as specified herein.

3.2 Design, construction, and physical dimensions. The design, construction, and physical dimensions shall be as specified in MIL-H-38534 and herein.

3.2.1 Case outline(s). The case outline(s) shall be in accordance with 1.2.2 herein and figure 1.

3.2.2 Terminal connections. The terminal connections shall be as specified on figure 2.

3.3 Electrical performance characteristics. Unless otherwise specified herein, the electrical performance characteristics are as specified in table I and shall apply over the full specified operating temperature range.

3.4 Electrical test requirements. The electrical test requirements shall be the subgroups specified in table II. The electrical tests for each subgroup are described in table I.

3.5 Marking. Marking shall be in accordance with MIL-H-38534. The part shall be marked with the PIN listed in 1.2 herein. In addition, the manufacturer's PIN may also be marked as listed in QML-38534 (see 6.6 herein).

3.6 Manufacturer eligibility. In addition to the general requirements of MIL-H-38534, the manufacturer of the part described herein shall maintain the electrical test data (variables format) from the initial quality conformance inspection group A lot sample, produced on the certified line, for each device type listed herein. The data should also include a summary of all parameters manually tested, and for those which, if any, are guaranteed. This data shall be maintained under document revision level control by the manufacturer and be made available to the preparing activity (DESC-EC) upon request.

STANDARDIZED MILITARY DRAWING DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OHIO 45444	SIZE <b>A</b>		<b>83024</b>
		REVISION LEVEL F	SHEET <b>6</b>

TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions -55° C ≤ T <sub>A</sub> ≤ +125° C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Low level output voltage	V <sub>OL</sub>	V <sub>CC</sub> = 4.5 V; I <sub>F</sub> = 0.5 mA; I <sub>OL</sub> = 1.5 mA <u>1/</u>	1, 2, 3	01		0.4	V
		V <sub>CC</sub> = 4.5 V; I <sub>F</sub> = 5 mA; I <sub>OL</sub> = 10 mA <u>1/</u>				0.4	
Current transfer ratio	h <sub>F(CTR)</sub>	V <sub>O</sub> = 0.4 V; I <sub>F</sub> = 0.5 mA; V <sub>CC</sub> = 4.5 V <u>1/ 2/</u>	1, 2, 3	01	300		%
		V <sub>O</sub> = 0.4 V; I <sub>F</sub> = 1.6 mA; V <sub>CC</sub> = 4.5 V <u>1/ 2/</u>			300		
		V <sub>O</sub> = 0.4 V; I <sub>F</sub> = 5 mA; V <sub>CC</sub> = 4.5 V <u>1/ 2/</u>			200		
High level output current	I <sub>OH</sub>	V <sub>CC</sub> = 18 V; V <sub>O</sub> = 18 V; I <sub>F</sub> = 2 μA <u>1/ 3/</u>	1, 2, 3	01		250	μA dc
High level supply current	I <sub>CCH</sub>	V <sub>CC</sub> = 18 V; I <sub>F1</sub> = I <sub>F2</sub> = I <sub>F3</sub> = I <sub>F4</sub> = 0 mA	1, 2, 3	01		40	μA dc
Low level supply current	I <sub>CCL</sub>	V <sub>CC</sub> = 18 V; I <sub>F1</sub> = I <sub>F2</sub> = I <sub>F3</sub> = I <sub>F4</sub> = 1.6 mA	1, 2, 3	01		4	mA dc
Input forward voltage	V <sub>F</sub>	I <sub>F</sub> = 1.6 mA <u>1/</u>	<u>1, 2</u>	01		1.7	V dc
			3			1.8	
Input reverse breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> = 10 μA <u>1/</u>	1, 2, 3	01	5.0		V dc
Input to output insulation leakage current	I <sub>IO</sub>	V <sub>IO</sub> = 1500 V dc; <u>4/</u> Relative humidity = 45%, t = 5 seconds; T <sub>A</sub> = +25° C	1	01		1.0	μA dc
Capacitance between input-output	C <sub>IO</sub>	f = 1 MHz; T <sub>A</sub> = +25° C, <u>1/ 5/ 6/</u>	4	01		4	pF

See footnotes at end of table.

STANDARDIZED  
MILITARY DRAWING  
DEFENSE ELECTRONICS SUPPLY CENTER  
DAYTON, OHIO 45444

SIZE  
**A**

83024

REVISION LEVEL  
F

SHEET  
**7**

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions -55°C ≤ T <sub>A</sub> ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Propagation delay time, low to high output level	t <sub>PLH</sub>	I <sub>F</sub> = 0.5 mA; R <sub>L</sub> = 4.7 kΩ; V <sub>CC</sub> = 5.0 V <u>1/</u>	9,10,11	01		60	μs
		I <sub>F</sub> = 5 mA; R <sub>L</sub> = 680Ω; V <sub>CC</sub> = 5.0 V <u>1/</u>	<u>9</u>	01		20	μs
			10,11			30	
Propagation delay time, high to low output level	t <sub>PHL</sub>	I <sub>F</sub> = 0.5 mA; R <sub>L</sub> = 4.7 kΩ; V <sub>CC</sub> = 5.0 V <u>1/</u>	9,10,11	01		100	μs
		I <sub>F</sub> = 5 mA; R <sub>L</sub> = 680Ω; V <sub>CC</sub> = 5.0 V <u>1/</u>	<u>9</u>	01		5	μs
			10,11			10	
Common mode transient immunity at high output level	C <sub>MH</sub>	V <sub>CM</sub> = 25 V (peak); V <sub>CC</sub> = 5.0 V; R <sub>L</sub> = 1.5 kΩ; I <sub>F</sub> = 0 mA; <u>1/ 6/ 7/ 8/</u>	9,10,11	01	500		V/μs
Common mode transient immunity at low output level, per channel	C <sub>ML</sub>	V <sub>CM</sub> = 25 V (peak); V <sub>CC</sub> = 5.0 V; R <sub>L</sub> = 1.5 kΩ; I <sub>F</sub> = 1.6 mA; <u>1/ 6/ 8/ 9/</u>	9,10,11	01	500		V/μs

1/ Each channel.

2/ Current transfer ratio is defined as the ratio of output collector current I<sub>O</sub>, to the forward LED input current, I<sub>F</sub>, times 100 percent.

3/ I<sub>F</sub> = 2 μA for channel under test. For all other channels, I<sub>F</sub> = 10 mA.

4/ Device considered a two-terminal device. Pins 1 through 8 are shorted together and pins 9 through 16 are shorted together.

5/ Measured between the LED anode and cathode shorted together and pins 10 through 15 shorted together.

6/ Parameters shall be tested as part of device initial characterization and after design and process changes. Parameters shall be guaranteed to the limits specified in table I for all lots not specifically tested.

7/ C<sub>MH</sub> is the maximum tolerable common mode transient to assure that the output will remain in a high logic state (i.e., V<sub>O</sub> > 2.0 V).

8/ In applications where dV/dt may exceed 50,000 V/μs (such as a static discharge) a series resistor, R<sub>CC</sub>, should be included to protect the detector IC's from destructively high surge currents. The recommended value is:

$$R_{cc} = \frac{1 \text{ V}}{0.6 I_F (\text{mA})} \text{ k}\Omega$$

9/ C<sub>ML</sub> is the maximum tolerable common mode transient to assure that the output will remain in a low logic state (i.e., V<sub>O</sub> < 0.8 V).

STANDARDIZED  
MILITARY DRAWING  
DEFENSE ELECTRONICS SUPPLY CENTER  
DAYTON, OHIO 45444

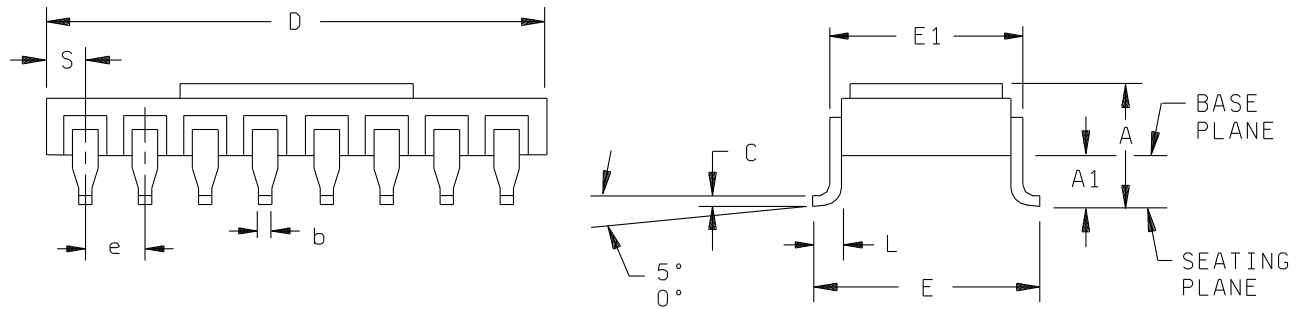
SIZE  
**A**

**83024**

REVISION LEVEL  
**F**

SHEET  
**8**

# Case outline X



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A		4.57		0.180
A1	1.40	1.65	0.055	0.065
b	0.41	0.51	0.016	0.020
c	0.18	0.33	0.007	0.013
D	20.07	20.83	0.790	0.820
e	2.29	2.79	0.090	0.110
E	9.65	9.91	0.380	0.390
E1		8.13		0.320
L	1.07	1.32	0.042	0.052
S	0.89	1.52	0.035	0.060

## NOTES:

1. The U.S. Government preferred system of measurement is the metric SI. This item was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Pin 1 is indicated by a dot marked on top of the package.

FIGURE 1. Case outlines.

STANDARDIZED  
MILITARY DRAWING  
DEFENSE ELECTRONICS SUPPLY CENTER  
DAYTON, OHIO 45444

SIZE  
**A**

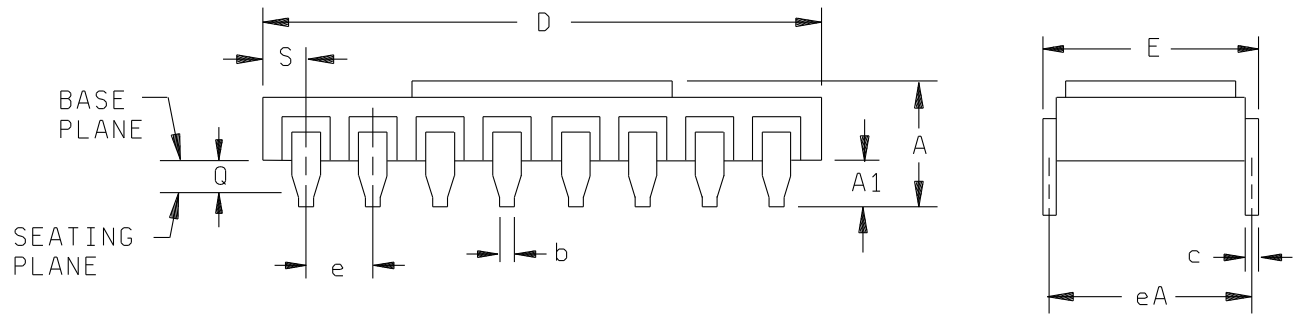
**83024**

REVISION LEVEL  
F

SHEET  
**9**



# Case outline Y



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A		4.32		0.170
A1	1.14	1.40	0.045	0.055
b	0.41	0.51	0.016	0.020
c	0.18	0.33	0.007	0.013
D	20.07	20.83	0.790	0.820
e	2.29	2.79	0.090	0.110
E		8.13		0.320
eA	7.37	7.87	0.290	0.310
Q	0.51		0.020	
S	0.89	1.52	0.035	0.060

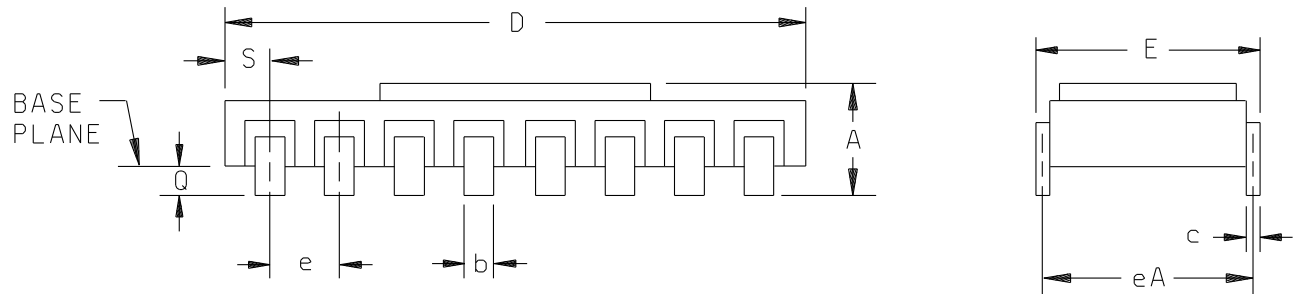
## NOTES:

1. The U.S. Government preferred system of measurement is the metric SI. This item was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Pin 1 is indicated by a dot marked on top of the package.

FIGURE 1. Case outlines - Continued.

<b>STANDARDIZED MILITARY DRAWING DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OHIO 45444</b>	<b>SIZE A</b>		<b>83024</b>
		<b>REVISION LEVEL F</b>	<b>SHEET 10</b>

# Case outline Z



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A		3.56		0.140
b	0.89	1.14	0.035	0.045
c	0.18	0.33	0.007	0.013
D	20.07	20.83	0.790	0.820
e	2.29	2.79	0.090	0.110
E		8.13		0.320
eA	7.37	7.87	0.290	0.310
Q	0.51		0.020	
S	0.89	1.52	0.035	0.060

## NOTES:

1. The U.S. Government preferred system of measurement is the metric SI. This item was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Pin 1 is indicated by a dot marked on top of the package.

FIGURE 1. Case outlines - Continued.

**STANDARDIZED  
MILITARY DRAWING  
DEFENSE ELECTRONICS SUPPLY CENTER  
DAYTON, OHIO 45444**

**SIZE  
A**

**83024**

**REVISION LEVEL  
F**

**SHEET  
11**

Device type	01
Case outlines	E, X, Y, and Z
Terminal number	Terminal connection
1	Cathode 1
2	Anode 1
3	Anode 2
4	Cathode 2
5	Cathode 3
6	Anode 3
7	Anode 4
8	Cathode 4
9	NC
10	GND
11	Output 4
12	Output 3
13	Output 2
14	Output 1
15	V <sub>CC</sub>
16	NC

FIGURE 2. Terminal connections.

<b>STANDARDIZED MILITARY DRAWING DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OHIO 45444</b>	<b>SIZE A</b>		<b>83024</b>
		<b>REVISION LEVEL F</b>	<b>SHEET 12</b>

TABLE II. Electrical test requirements.

MIL-H-38534 test requirements	Subgroups (in accordance with MIL-H-38534, group A test table)
Interim electrical parameters	1
Final electrical test parameters	1*, 2, 3, 9
Group A test requirements	1, 2, 3, 4, 9, 10, 11
Group C end-point electrical parameters	1, 2, 3

\* PDA applies to subgroup 1.

3.7 Certificate of compliance. A certificate of compliance shall be required from a manufacturer in order to be listed as an approved source of supply in QML-38534 (see 6.6 herein). The certificate of compliance submitted to DESC-EC prior to listing as an approved source of supply shall affirm that the manufacturer's product meets the requirements of MIL-H-38534 and the requirements herein.

3.8 Certificate of conformance. A certificate of conformance as required in MIL-H-38534 shall be provided with each lot of microcircuits delivered to this drawing.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-H-38534.

4.2 Screening. Screening shall be in accordance with MIL-H-38534. The following additional criteria shall apply:

a. Burn-in test, method 1015 of MIL-STD-883.

(1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DESC-EC or the acquiring activity upon request. Also, the test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1015 of MIL-STD-883.

(2)  $T_A$  as specified in accordance with table I of method 1015 of MIL-STD-883.

b. Interim and final electrical test parameters shall be as specified in table II herein, except interim electrical parameter tests prior to burn-in are optional at the discretion of the manufacturer.

4.3 Quality conformance inspection. Quality conformance inspection shall be in accordance with MIL-H-38534 and as specified herein.

4.3.1 Group A inspection. Group A inspection shall be in accordance with MIL-H-38534 and as follows:

a. Tests shall be as specified in table II herein.

b. Subgroups 5, 6, 7, and 8 shall be omitted.

4.3.2 Group B inspection. Group B inspection shall be in accordance with MIL-H-38534.

**STANDARDIZED  
MILITARY DRAWING  
DEFENSE ELECTRONICS SUPPLY CENTER  
DAYTON, OHIO 45444**

SIZE  
**A**

**83024**

REVISION LEVEL  
F

SHEET  
**13**

4.3.3 Group C inspection. Group C inspection shall be in accordance with MIL-H-38534 and as follows:

- a. End-point electrical parameters shall be as specified in table II herein.
- b. Steady-state life test, method 1005 of MIL-STD-883.
  - (1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DESC-EC or the acquiring activity upon request. Also, the test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in test method 1005 of MIL-STD-883.
  - (2)  $T_A$  as specified in accordance with table I of method 1005 of MIL-STD-883.
  - (3) Test duration: 1,000 hours, except as permitted by method 1005 of MIL-STD-883.

4.3.4 Group D inspection. Group D inspection shall be in accordance with MIL-H-38534.

## 5. PACKAGING

5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-H-38534.

## 6. NOTES

6.1 Intended use. Microcircuits conforming to this drawing are intended for use for Government microcircuit applications (original equipment), design applications, and logistics purposes.

6.2 Replaceability. Microcircuits covered by this drawing will replace the same generic device covered by a contractor-prepared specification or drawing.

6.3 Configuration control of SMD's. All proposed changes to existing SMD's will be coordinated with the users of record for the individual documents. This coordination will be accomplished in accordance with MIL-STD-973 using DD Form 1692, Engineering Change Proposal.

6.4 Record of users. Military and industrial users shall inform Defense Electronics Supply Center when a system application requires configuration control and the applicable SMD. DESC will maintain a record of users and this list will be used for coordination and distribution of changes to the drawings. Users of drawings covering microelectronics devices (FSC 5962) should contact DESC-EC, telephone (513) 296-6047.

6.5 Comments. Comments on this drawing should be directed to DESC-EC, Dayton, Ohio 45444, or telephone (513) 296-5373.

6.6 Approved sources of supply. Approved sources of supply are listed in QML-38534. Additional sources will be added to QML-38534 as they become available. The vendors listed in QML-38534 have agreed to this drawing and a certificate of compliance (see 3.7 herein) has been submitted to and accepted by DESC-EC.

STANDARDIZED MILITARY DRAWING DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OHIO 45444	SIZE <b>A</b>		<b>83024</b>
		REVISION LEVEL F	SHEET <b>14</b>

## STANDARDIZED MILITARY DRAWING SOURCE APPROVAL BULLETIN

DATE: 94-04-07

Approved sources of supply for SMD 83024 are listed below for immediate acquisition only and shall be added to QML-38534 during the next revision. QML-38534 will be revised to include the addition or deletion of sources. The vendors listed below have agreed to this drawing and a certificate of compliance has been submitted to and accepted by DESC-EC. This bulletin is superseded by the next dated revision of QML-38534.

Standardized military drawing PIN	Vendor CAGE number	Vendor similar PIN <u>1/</u>
8302401EX	31757 50434	6N140/883B 6N140A/883B
8302401XX	50434	6N140A/883B#300
8302401YX	50434	6N140A/883B#100
8302401ZX	50434	6N140A/883B#600

1/ Caution. Do not use this number for item acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.

Vendor CAGE  
number

Vendor name  
and address

31757

Micropac Industries, Incorporated  
Optoelectronics Division  
905 E. Walnut Street  
Garland, TX 75040-6611  
Point of contact: Optoelectronic Division  
725 E. Walnut Street  
Garland, TX 75040

50434

Hewlett Packard  
Optical Communications Division  
370 West Trimble Road  
San Jose, CA 95131-1096  
Point of contact: Optoelectronic Division  
350 West Trimble Road  
San Jose, CA 95131-1096

The information contained herein is disseminated for convenience only and the Government assumes no liability whatsoever for any inaccuracies in this information bulletin.